WHAT IS CLAIMED IS:

1. A method of reducing interferences in an electrochemical sensor comprising:

measuring a first current at a first working electrode, said first working electrode being covered by a reagent layer;

measuring a second current at a second working electrode, wherein said reagent layer partially covers said second working electrode, said second working electrode having a covered area and an uncovered area; and

calculating a corrected current value representative of a glucose concentration using a ratio of said covered area to said uncovered area of said second working electrode.

2. The method of claim 1, wherein said corrected current value is calculated using the equation:

$$G = WE_1 - \left\{\left(\frac{A_{cov}}{A_{unc}}\right) X \left(WE_2 - WE_1\right)\right\}$$

where G is the corrected current value, WE_1 is the uncorrected current density at said first working electrode, WE_2 is the uncorrected current density at said second working electrode, A_{cov} is the coated area of said second working electrode and A_{unc} is the uncoated area of said second working electrode.

3. A method of reducing interferences in an electrochemical sensor comprising:

measuring a second current at a first working electrode, wherein said reagent layer partially covers said first working electrode, said first working electrode having a first covered area and a first uncovered area;

measuring a second current at a second working electrode, wherein said reagent layer partially covers said second working electrode, said second working electrode having a second covered area and a second uncovered area; and

calculating a corrected current value representative of a glucose concentration using a ratio of said covered area to said uncovered area of said first and said second working electrodes.

4. The method of Claim 3, wherein said corrected current value is calculated using the equation:

$$G = WE_1 - \left\{ \left(\frac{f_1 + f_2}{f_2 - 1} \right) \times (WE_2 - WE_1) \right\} . \qquad \text{(Eq 7c)}$$

where

$f1 = \frac{A_{cov1}}{A_{unc1}}$;

$f2 = \frac{A_{cov1}}{A_{unc2}}$;

A_{unc1} is an uncoated area of said first working electrode;

A_{unc2} is an uncoated area of said second working electrode;

A_{cov1} is a coated area of said first working electrode;

A_{cov2} is a coated area of said second working electrode;

G is the corrected current value;

WE_1 is the uncorrected current density at said first working electrode; and

WE_2 is the uncorrected current density at said second working electrode.